REMARKS

This is in response to the Office Action mailed on April 7, 2004. In the Office Action, the Examiner indicate that Claims 1-19 are pending and Claims 1-19 are rejected. The action was made FINAL. With this Amendment, Claims 1, 13 and 19 are amended to place the application in better condition for appeal, and Claims 1-19 are presented for reconsideration and allowance.

The Examiner rejected Claims 1-19 under 35 U.S.C. 112, second paragraph, as indefinite, in particular with regard to the phrases "a combination of a Young's Modulus ... with magnetic media at high temperatures" and "high temperatures". With this Amendment, independent Claims 1, 13 and 19 are amended to recite that the transducer is subject to thermal protrusion with increasing temperature and that a restraint layer (or means for restraining) has a thickness of at least 2 μm such that the thermal protrusion is reduced by a factor of three or more.

The 2 μm thickness dimension is disclosed in the specification at page 13, line 17. The reduction of thermal protrusion by a factor three or more is disclosed in the graphs in FIGS. 6-8 of the present application.

Reconsideration of the rejection under 35 USC 112, second paragraph and allowance of Claims 1-19, as presently amended, is therefore requested.

The Examiner rejected Claims 1- 19 under 35 U.S.C. 102(b) as anticipated by Koshikawa et al (US 5,898,542).

As discussed above, with this Amendment, independent Claims 1, 13 and 19 are amended to recite that the transducer is subject to thermal protrusion with increasing temperature and that a restraint layer (or means for restraining) has a thickness of at least 2 μm such that the thermal protrusion is reduced by a factor of three or more.

The particular combination of restraint layer dimension and factor of reduction of protrusion presently claimed in

independent Claims 1, 13 and 19 is not disclosed by Koshikawa et al. Instead, Koshikawa et al. teaches providing a step or protrusion on a leading side of a magnetoresistive head element to avoid the problems of protrusions, but does not teach or suggest reducing the protrusion itself.

Reconsideration of the rejection under 35 USC 102(b) over Koshikawa et al. of Claims 1-19, as presently amended, is therefore requested.

The Examiner rejected Claims 1-11, 13-19 under 35 U.S.C. 102(b) as anticipated by Okai et al (US 5,687,045).

As discussed above, with this Amendment, independent Claims 1, 13 19 are amended to recite that the transducer is subject to thermal protrusion with increasing temperature and that a restraint layer (or means for restraining) has a thickness of at least 2 μm such that the thermal protrusion is reduced by a factor of three or more.

The particular combination of restraint layer dimension and factor of reduction of protrusion presently claimed in independent Claims 1, 13 and 19 is not disclosed by Okai et al. Instead, Okai et al. teaches etching steps or recessions in an air bearing surface to overcome the problem of protrusion, but does not teach or suggest reducing the protrusion itself.

Reconsideration of the rejection under 35 USC 102(b) of Claims 1-11, 13-19, as presently amended, is therefore requested.

In the invention, as presently claimed, a restraint layer (or restraint means) has a thickness of 2 μm such that thermal protrusion of a transducer is reduced by a factor of three or more. Contact between the transducer and magnetic media is avoided by reducing the protrusion. This arrangement is not taught or suggested by the art cited by the Examiner.

With this amendment, the application appears to be in condition for allowance and favorable action is requested. The Director is authorized to charge any fee deficiency required by

this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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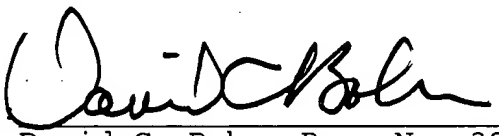
By 

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